

CLAIMS:

1. A metal halide lamp for a vehicle headlamp comprising:
a cylindrically-shaped discharge vessel (3; 13; 23; 33) along a longitudinal axis (10),
said discharge vessel (3; 13; 23; 33) having a ceramic wall (43) which
5 encloses a discharge space (42) comprising Xe and an ionizable filling, and
a cylindrically-shaped outer bulb (1; 11; 21; 31) surrounding the discharge vessel (3; 13; 23; 33) along the longitudinal axis (10),
characterized in that
a portion (25, 26; 35, 36) of the surface of the outer bulb (21; 31) facing away
10 from the discharge vessel (23; 33) is shaped as a negative lens.
2. A metal halide lamp as claimed in claim 1, characterized in that the portion (25, 26; 35, 36) with respect to the longitudinal axis (10) encompasses a segment of the outer bulb (21; 31) with a segment angle α in the range between $20 \leq \alpha \leq 110^\circ$.
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3. A metal halide lamp as claimed in claim 1 or 2, characterized in that the portion (25, 26) forming the negative lens comprises a flat surface.
4. A metal halide lamp as claimed in claim 1 or 2, characterized in that the
20 portion (35, 36) forming the negative lens comprises a curved surface which is less curved than the curvature of the remainder of the outer bulb (31).
5. A metal halide lamp as claimed in claim 1 or 2, characterized in that a first and a second portion (25, 26; 35, 36) of the surface of the outer bulb (21; 31) facing away from
25 the discharge vessel (23, 33) are shaped as a negative lens.
6. A metal halide lamp as claimed in claim 5, characterized in that the first and the second portion (25, 26; 35, 36) are at opposite sides of the outer bulb (21; 31).

7. A metal halide lamp as claimed in claim 5, characterized
in that the transition between the first portion and the remainder of the outer
bulb defines a first plane (25A; 35A),
in that the transition between the second portion and the remainder of the outer
5 bulb defines a second plane (26A; 36A), and
in that the first plane (25A; 35A) and the second plane (26A; 36A) make an
angle with respect to each other which is equal to or less than 10° .
8. A metal halide lamp as claimed in claim 5, characterized in that at least one of
10 the portions (25, 26; 35, 36) forming the negative lens has anti-reflective properties.
9. A vehicle headlamp comprising a reflector (50) and a metal halide lamp (51)
as claimed in claim 1 or 2.
- 15 10. A vehicle headlamp as claimed in claim 10, characterized in that the portions
forming the negative lenses are oriented in the direction of portions of the reflector creating a
cut-off between the illuminated area and the glare area according to requirements for
automotive passing beam patterns.